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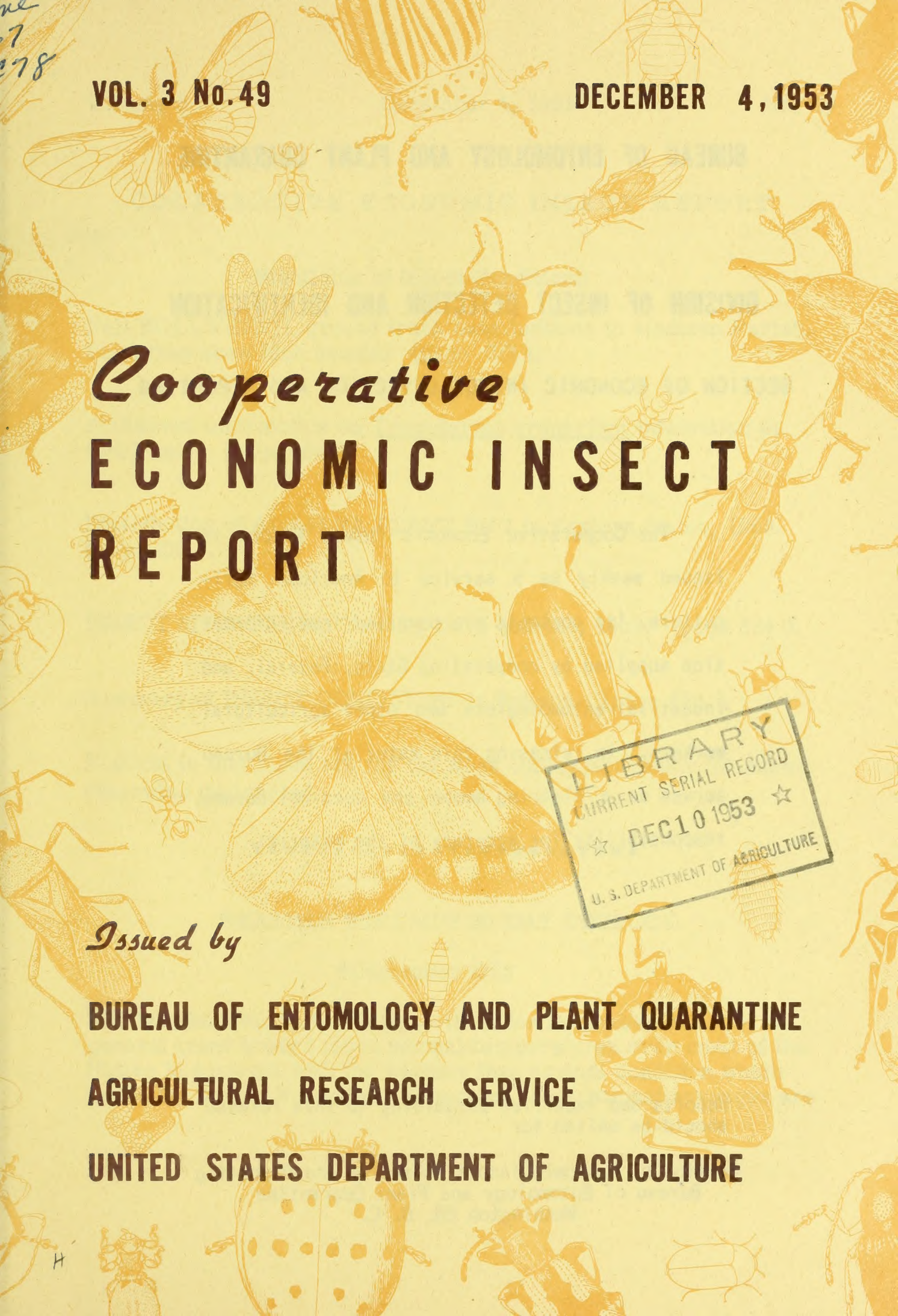
VOL. 3 No. 49

DECEMBER 4, 1953



Cooperative
ECONOMIC INSECT REPORT

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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

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BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

DIVISION OF INSECT DETECTION AND IDENTIFICATION

SECTION OF ECONOMIC INSECT DETECTION AND REPORTING

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Bureau serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Section of Economic Insect Detection and Reporting
Bureau of Entomology and Plant Quarantine
Washington 25, D. C.

Volume 3 December 4, 1953 No. 49

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

Fall BOLLWEEVIL ground trash examinations in Madison Parish, Louisiana show high counts. (page 821).

Additional information on Trogoderma granarium infestation in California. (page 823).

Distribution of ALFALFA PLANT BUG in Eastern States, 1953. (page 819).

INSECT SITUATION in Hawaii, third quarter, 1953. (page 824).

Summary of INSECT CONDITIONS in Indiana. (page 826).

Reports in this issue are for the week ending November 27 unless otherwise designated.

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WEATHER BUREAU'S 30-DAY OUTLOOK

*December 1953

The Weather Bureau's 30-day outlook for December calls for a general trend toward more normal temperatures over most of the Nation in contrast with the warmer than normal condition which prevailed during November. Somewhat above normal averages are expected in the Great Lakes Region and Northeast, while below normal is indicated over the southwestern quarter of the Nation. In other areas near normal is predicted. Precipitation in excess of normal is anticipated over most of the Country except for near or slightly below normal amounts over the Northern Plateau, Ohio Valley and Southeast.

*This report released by the Weather Bureau on December 1, 1953.

Weather forecast given here is based on the official 30 day "Resume and outlook," published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington, D. C. Price: $4.80 a year, $2.40 for six months.

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WEATHER FOR THE WEEK ENDING NOVEMBER 30, 1953

East of the Mississippi River, general precipitation occurred on the 24th and 25th and continued at frequent intervals in northern sections during the remainder of the week. Small grains and cover crops were benefited, but amounts were generally too light to raise water levels and restore subsoil moisture, and water hauling continues in some sections of the Ohio Valley. West of the Mississippi the only appreciable precipitation was confined to the Pacific Northwest where weekly totals exceeded an inch as far east as western Idaho and a few points along the Coast reported 8 inches or more. In the Southwest, where no measurable amounts were reported during the week, ranges and soil are extremely dry. In northern sections east of the Divide most precipitation fell as light to moderate snow, and in much of the area from the eastern Dakotas eastward through and around the Great Lakes snow still lay on the ground at the end of the period. The cover was generally light, although depths of 5 inches or more were reported in the eastern Dakotas, in areas around Bemidji and International Falls, Minn., and in northern Indiana. Snow also covered parts of West Virginia at the end of the period; Elkins reported 2 and Flattop 4 inches. (Weather continued on page 825).

CEREAL AND FORAGE INSECTS

Distribution of Alfalfa Plant Bug in Eastern States, 1953

The alfalfa plant bug (Adelphocoris lineolatus) was first reported in the United States from Iowa in 1929 and has spread gradually through the North Central States and the Midwest since that time. H. E. Milliron reported collecting this insect at lights near Glasgow and Newark, DELAWARE, June 9. Although it was not found commonly in the Eastern States, intermittent collecting during July, August, and September gave the following new records of occurrence. MARYLAND - Washington County, west of Hagerstown, July 9; Prince Georges County, at Beltsville, July 14; Frederick County, near Wolfsville, July 13; Harford County, near Bel Air, August 11; Anne Arundel County, at Gambrills, August 19. PENNSYLVANIA - Fulton County, near Warfordsburg, July 9; Adams County, near Oxford, August 25; Montgomery County, near Montgomeryville, July 16; Berks County, east of Stouchsburg, August 25; Lebanon County, south of Lebanon, August 25; Bucks County, west of New Hope, August 26. NEW JERSEY - Mercer County, near Hopewell, August 26. WEST VIRGINIA - Monongalia County, near Morgantown, July 8. VIRGINIA - Loudoun County, near Purcellville, September 30. (App and Poos).

AN APHID (prob. Toxoptera graminum) - GEORGIA - Heavy damage to 10 acres of oats in Spalding County, November 23. (Beckham). Moderate to heavy infestations on nearly all oats in Brooks County. Hymenopterous parasitism very light, some syrphid fly larvae present, November 23. (Morgan).

MITES ON OATS - TEXAS - Light widespread infestation on oats in McLennan County. Mites appearing in fields of oats following oats. No serious damage. (Norris).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - VIRGINIA - Caused considerable damage to the 1953 peanut crop. (Rowell).

MEXICAN BEAN BEETLE (Epilachna varivestis) - VIRGINIA - Injury to Ladino clover by larvae and adults observed in several counties during past season. (Rowell).

THREE-CORNERED ALFALFA HOPPER (Spissistilus festinus) - SOUTH CAROLINA - Infesting alfalfa in Yemassee, November 4. (Nettles).

CORRECTION: Under OKLAHOMA - CHINCH BUG, vol. 3, no. 47, November 20, 1953, page 804, estimated number should have read "280 per square foot in Payne County." (Fenton).

FRUIT INSECTS

WOOLLY APPLE APHID (Eriosoma lanigerum) - OHIO - Very abundant at Columbus on apple trees in a 30-year old orchard which has been sprayed several times. (Parks).

TWIG GIRDLER (Oncideres cingulata) - SOUTH CAROLINA - Damaging pecan twigs in Charleston County, November 13. (Nettles).

PECAN WEEVIL (Curculio caryae) - SOUTH CAROLINA - Damaging pecan nuts in Charleston County, November 13. (Nettles).

TRUCK CROP INSECTS

CABBAGE CATERPILLARS - FLORIDA - Loopers continue to increase on cabbage and collards in Gadsden County area. Customary control measures apparently have lost effectiveness. (Guthrie, May).

CUTWORMS (Agrotis sp.) - FLORIDA - Have been chief pests of cabbage this season in Hastings area. (Dobrovsky).

TURNIP APHID (Rhopalosiphum pseudobrassicae) - TEXAS - Light local infestation on turnip green in Brazos County. (Davis).

A COREID (Niesthrea sidae) - GEORGIA - Numerous on Althaea sp. in Clarke and Taliaferro Counties. (Jordan).

COTTON INSECTS

Fall Boll Weevil Ground Trash Examinations: LOUISIANA - The surface or ground trash examinations have been completed in Madison Parish. The number of weevils per acre per point (10 samples) ranged from 242 to 27,830. The average number of weevils per acre was 5,239. This was more than four times as great as the number (1,295) found in the fall of 1952 and is the greatest number that has been found in this parish since these records were begun in 1936. The following table gives all available records for fall and spring examinations in Madison Parish. (Young).

	Fall Examinations		Spring Examinations		
Year	Number of Samples*	Live Boll Weevils per Acre	Number of Samples*	Live Boll Weevils per Acre	Per Cent Survival
1936			189	141	
1936-37	16	2,118	48	50	2
1937-38	56	519	78	186	36
1938-39	98	1,284	118	226	18
1939-40	82	2,243	89	190	8
1940-41	104	721	200	920	128
1941-42	150	1,484	200	327	22
1942-43	200	2,916	200	750	26
1943-44	250	2,488	120	625	25
1944-45	160	2,435	160	1,512	62
1945-46	200	4,199	200	1,065	25
1946-47	200	2,698	210	426	16
1947-48	150	1,178	150	177	15
1948-49	150	2,146	150	1,710	80
1949-50	200	3,231	200	2,202	68
1950-51	200	4,586	200	1,742	38
1951-52	200	1,367	200	629	46
1952-53	200	1,295	200	1,149	89
1953-54	200	5,239			

* Each sample 18 square feet.

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Heavy local infestation on cotton found in cotton patch near gin at Navasota, Grimes County. (Fuller). Medium isolated infestation found on cotton in Van Zandt County. Of 125 bolls inspected, 23 larvae found in 9 bolls. (Garner).

FOREST INSECTS

MITES ON CEDAR - OKLAHOMA - Eriophyid mites belonging to the genera ,Trisetacus and Phyllocoptesheavily infesting red cedars in Payne County. Determinations by Keifer. (Howell).

BLACK TURPENTINE BEETLE (Dendroctonus terebrans) - MISSISSIPPI - Damaging loblolly pines in one section of Jasper County. (Hutchins).

AN AMBROSIA BEETLE (Platypus flavicornis) - MISSISSIPPI - Infesting trees in Jasper County. (Hutchins).

TULIPTREE SCALE (Toumeyella liriodendri) - CALIFORNIA - First record for Santa Barbara County (see CEIR, vol. 3, no. 46, page 793) was not found on established host species, but on nursery stock. The infestation has been eradicated. (Armitage).

WHITE GRUBS (prob. Phyllophaga spp.) - SOUTH CAROLINA - Damaging pine seedlings on Savannah River Project area, November 30. (Cochran)

INSECTS AFFECTING MAN AND ANIMALS

BROWN-BANDED ROACH (Supella supellectilium) - CALIFORNIA - Found for first time in Sacramento County. Light infestation. (Armitage).

SCREW-WORM (Callitroga hominivorax) - FLORIDA - Reports of animals having to be treated indicate screw-worm negligible in Gadsden County area. (May).

EAR TICK (Otobius megnini) - OKLAHOMA - Being found on cattle in eastern area. (Vick).

WINTER TICK (Dermacentor albipictus) - OKLAHOMA - Becoming abundant on cattle in Pushmataha County. (Goin).

LIVESTOCK FLIES - MISSISSIPPI - Populations decreasing rapidly in Delta region. (Lewis, Nov. 20).

STORED PRODUCT INSECTS

A DERMESTID (Trogoderma granarium) - CALIFORNIA - Subsequent investigations indicate that while the finding of this insect in California (CEIR, vol. 3, no. 47, page 803) may have been a first record for the Western Hemisphere, it is not the first occurrence in California. Review of the situation suggests that infestation is not only of fairly long standing, but may be quite widely distributed in the State due to the fact that it had apparently been accepted by owners of infested grain as representing one of the species of dermestids commonly found under such conditions. Apparently no specimens had previously been collected for identification. In support of the situation, further surveys indicate that heavy infestation occurred in a warehouse in Fresno as early as 1946, reaching a peak in 1949. Its presence at that time is supported by the finding of cast skins, dead larvae and adults in crevices in brick walls of the building, representing infestation which must have occurred prior to 1949 as losses were so heavy at that time the building was emptied and dis-infested and has not been used subsequently for grain storage. It has developed also that in 1949 used bags were transferred to Alpaugh to be filled and used for bulkhead purposes in absence of bins. This undoubtedly accounts for the infestation there. Additional infestations have been reported in two poultry feed processing supply houses in the Los Angeles area. In view of these findings, it has been concluded that any eradication attempt would be impractical and that the species must be accepted as an established storage pest. (Armitage).

A PALM MOTH (Litoprosopus coachella) - ARIZONA - Causing some damage to carpeting and upholstered furniture in Phoenix homes. (Brantlinger).

MISCELLANEOUS INSECTS

CLUSTER FLY (Pollenia rudis) - UTAH - Annoying in homes in many localities. (Knowlton).

RECENT IMPORTANT INTERCEPTIONS AT PORTS OF ENTRY

With the advent of the chestnut season, Plant Quarantine Inspectors at New York are finding nuts from Europe infested with live insects. A representative sample from 7 cases of Italian chestnuts yielded two living larvae identified as Sp. of Olethreutidae, doubtfully Laspeyresia splendana (Hbn.), the nut fruit tortrix. Inspection of a 546 barrel lot marked "PRIZED" resulted in the finding of four live larvae of the European chestnut weevil, Curculio elephas Gyll. Both shipments were fumigated with methyl bromide before being released to the importers. These insects, not established in the United States, exist in practically every European country where chestnuts are grown. Several curculionid larvae usually occupy one nut, and infrequently both species may be found in a single fruit. Practically every lot taken in passengers' baggage is riddled with living larvae of these two destructive pests. Another olethreutid, Hemimene juliana (Curt.) is occasionally found damaging chestnuts from Italy. (Ramsay).

Insect Situation in Hawaii, Third Quarter, 1953

A REDUVIID (Polididus armatissimus Stal), a new immigrant to the Hawaiian Islands, was discovered in Hilo, Hawaii, in September. It is known from India, Ceylon , Burma, China, Japan, and the Philippine Islands. A NEW MOTH - Larvae of a tineid-like moth were found attacking flowers of kiawe (Prosopis juliflora) on all the islands, causing severe damage in many places. A recent small bean crop was attributed to this, as well as low honey production, kiawe being one of the main honey sources in the Territory. According to the Division of Insect Detection and Identification, to whom specimens were submitted, the moth does not fit into any of the known families, coming closest to the Momphidae. The TARO LEAFHOPPER (Megamelus proserpina) caused moderate to severe damage in taro fields on Kauai. The fields were stocked with the egg-sucking bug *Cyrtorhinus fulvus* and control is expected in a short time. Heavy damage by the CHINESE ROSE BEETLE (*Adoretus sinicus*) was reported from the island of Maui, where it was attacking litchi, ornamental hibiscus, and hau (*Hibiscus tiliaceus*). *Scotorythra* sp. - An outbreak of this endemic moth on *Acacia koa* was reported from Hawaii, reaching epidemic proportions in July and August. Approximately two square miles of forest were affected. Cocoons of the ichneumonid, *Hyposoter exiguae*, were readily found. The species is believed to be *S. paludicola*, which reached epidemic proportions on the neighbor island of Maui in 1896, 19[illegible], and 1945. (Weber).

Weather Continued:

The week was much warmer than normal in regions along the Canadian Border and west of the Mississippi River. San Diego, Calif., recorded a late season high of 89° on the 25th, and Tucson, Ariz., one of 83° on the 29th. The mild temperatures were very favorable for fall grains in the central Great Plains and Northwest.

In contrast average temperatures for the week were much below normal east of the Mississippi and south of the Great Lakes. Freezing occurred in much of the South on the 26th, and on the 27th occurred as far south as northern Florida (Tallahassee 32°), and scattered frost was reported southward to the Everglades. (Summary Supplied by U. S. Weather Bureau).

SUMMARY OF INSECT CONDITIONS - 1953

INDIANA

Reported by J. J. Davis

The 1953 season in Indiana provided variable climatic conditions, favorable to some insects and unfavorable to others; likewise favorable to some crops and unfavorable to others.

Field Crop Insects: Early in the season insects attacking crops of the grass family were unusually prominent. Of these the armyworm was most prominent. ARMYWORM (Pseudaletia unipuncta) outbreak was the most widespread and abundant since 1911, and apparently was indirectly due to weather conditions. Armyworm moths were abundant the last of April and early May. It is not uncommon in Indiana to have armyworm moths abundant in the early spring, but only every three or four years do the "worms" cause appreciable damage, because they are normally checked by parasites. The first reports of armyworm abundance were received the last week in May. From June 1-20 long distance telephone calls were received almost continuously regarding outbreaks. Early reports all came from southern Indiana. Beginning about June 10 abundance and damage were reported in the northern half of the State, although not as general and severe as in southern Indiana. By June 20 reports were received of abundance of "eggs of armyworms," which proved to be cocoons of common armyworm parasites. No further trouble was experienced during 1953. Major damage was to corn, wheat and pastures. The absence of normal parasitism will explain the outbreak, and absence of parasites may be explained by the weather. A cool spring prevented normal development of the parasites, but the armyworm, not requiring as high a temperature as parasites, continued to develop. Also vegetation was rank which favored maximum egg laying. As a result, more eggs were laid than usual and the larvae developed without their normal parasite checks. It was not until the larvae were nearly full grown that the weather permitted the parasites to "catch up" with them and check their development. It is estimated that at least $4,000,000 was saved for the farmers because of adequate service provided by county agents, insecticide dealers and service applicators.

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) became destructively abundant the latter part of June in southern Indiana following the common armyworm outbreak. The outbreak was not too important but alarming following the disastrous armyworm invasion. CUTWORMS, especially black cutworm (Agrotis ypsilon) became serious pests throughout the State. CORN FLEA BEETLE (Chaetocnema pulicaria) was unusually abundant and destructive during the last of May and during June and in many cases called for insecticide treatment. In some areas the flea beetles continued abundant throughout the growing season. Stewart's disease, carried by the flea beetle, caused much loss to corn plantings the latter part of June. CHINCH BUG (Blissus leucopterus) was destructively abundant in northeastern Indiana from Wayne County northward and to a lesser extent in northwestern Indiana. Damage was not serious, but indications are that there may be a carry-over which may develop a serious infestation in 1954. SEED-CORN MAGGOT (Hylemya cilicrura) was unusually abundant, probably due to the cold wet spring, which prevented prompt seed germination. SOD WEBWORMS (Crambidae) were abundant in many corn fields in northern counties. STALK BORER (Papaipema nebris) was destructive particularly to corn, during June, especially in the northern area.

GRASSHOPPERS (Melanoplus mexicanus, M. femur-rubrum, and M. differentialis) were more abundant and destructive than usual, especially in the southern third of the State. In the northern half of the State they were abundant but were scattered and damage occurred in isolated areas. Populations were very abundant during July and August, especially on grass, corn, soybeans and other legumes. In general, EUROPEAN CORN BORER (Pyrausta nubilalis) was not destructively abundant although there was a noticeable increase and damage in a few localities, particularly in certain northwestern and south central counties. Practically no infestation in corn planted between May 15-30. The 1953 fall survey of overwintering borers showed an increase in borer population from 39 borers per 100 stalks in 1952 to 62 in 1953. Furthermore, the borers were in a better condition for overwintering this fall than a year ago. CORN EARWORM (Heliothis armigera) was unusually abundant throughout the season. Damage to early sweet corn was first observed in the Evansville area. Damage to early market tomatoes was also noted. During September infestation of canning tomatoes became so severe that a number of canneries stopped operation several weeks before normal closing. WIREWORMS (Elateridae) continue as major pests of various crops, especially corn and potatoes, in sandy loam soils as well as in muck.. The larger growers are using soil insecticides and in general are getting good results. PEA APHID (Macrosiphum pisi) was unusually abundant on clover and alfalfa during April and first half of May in the southern half of Indiana. Insecticide control was practical in many areas. CLOVER LEAF WEEVIL (Hypera punctata) was abundant on clover, and to a lesser extent on alfalfa in early May, but apparently did not cause appreciable damage.

CLOVER ROOT BORER (Hylastinus obscurus) was exceptionally abundant in second-year clover near Huntington. Counts in one field showed 75 percent of the plants infested, averaging six borers per plant. There is reason to believe that this insect is more abundant and destructive than commonly believed. MEADOW SPITTLEBUG (Philaenus leucophthalmus) began hatching from overwintering eggs in early April and was normally abundant and destructive over the State. The more general use of insecticides on clover has reduced losses materially. BEAN LEAF BEETLE (Cerotoma trifurcata) damaged soybeans in some localities the latter half of June. JAPANESE BEETLE (Popillia japonica) was found in conspicuous numbers in 1953 in Newton County, Indiana and adjoining Iroquois County in Illinois. The extent of the infestation indicates that the introduction occurred at least six years ago. The insect is well established in a typical corn belt farm area and a rapid spread to adjacent areas can be anticipated, unless extermination methods are practiced and are effective. Although the Japanese beetle has been found in few numbers in many localities in the State, primarily in cities, only one previous infestation, comparable with the one reported above has been found and that in the outskirts of South Bend.

Vegetable Insects: POTATO FLEA BEETLE (Epitrix cucumeris) was quite abundant on potatoes early in the season. POTATO LEAFHOPPER (Empoasca fabae) was very common on potatoes during the last half of June.

RHUBARB CURCULIO (*Lixus concavus*) was reported from many scattered localities throughout the State. CABBAGE MAGGOT (*Hylemya brassicae*) was a major problem throughout Indiana, attacking cabbage and other cole crops.

Fruit Insects: This has been the year of the PERIODICAL CICADA (*Magicicada septendecim*). The adults began emerging in southern Indiana, at Orleans, May 19, and at Lafayette, May 29. It was common throughout the State but not as abundant or conspicuous in the northern half as seventeen years ago. In southern Indiana it was a severe pest of young and old fruit trees. Damage for the season was notable, but more important is the fact that all attacked trees will show the damage in production losses, for years to come.

Insects of Shade Trees and Ornamentals: BAGWORM (*Thyridopteryx ephemeraeformis*) is again building up to destructive numbers, after a couple of years of comparative scarcity. BRONZE BIRCH BORER (*Agrilus anxius*) was noticeably more abundant and destructive than usual, possibly due in part to drought conditions during the 1953 season. ELM LEAF BEETLE (*Galerucella xanthomelaena*) was common throughout the southern third of the State, and from reports received, much more so than usual. MAPLE BLADDER-GALL MITE (*Vasates quadripedes*) was perhaps the most common leaf gall reported, possibly because it is so conspicuous, although of little economic importance. FLATHEADED APPLE TREE BORER (*Chrysobothris femorata*) was reported many times from all parts of the State. Although primarily a pest of young hard maple trees, it has been reported attacking other trees, including fruit and shade trees. Weakened trees and especially recently-transplanted trees are especially subject to attack. Wrapping trunks of newly-planted trees is becoming a common practice.

Household and Miscellaneous Pests: AMERICAN DOG TICK (*Dermacentor variabilis*) was more common than usual, according to the number of inquiries received. BLACK CARPET BEETLE (*Attagenus piceus*) is still a major household pest, evidenced by the large number of inquiries. From reports and observations, these beetles are far more important pests of woolens and furs than the clothes moths.

FLEAS (*Ctenocephalides felis* and *Pulex irritans*) have been reported many times from all parts of the State and from both urban and rural areas. A POWDER POST BEETLE (*Lyctus* sp.) - During the year many inquiries have been received, sufficient to recognize it as a problem of major importance. BOXELDER BUG (*Leptocoris trivittatus*) continued as an annual pest. CLOVER MITE (*Bryobia praetiosa*) made its appearance in April and again in October, migrating into homes and becoming a conspicuous nuisance. STRAWBERRY ROOT WEEVIL (*Brachyrhinus ovatus*) is another home invader which is frequently reported. With the increase of ELM LEAF BEETLE in southern Indiana, increasing reports of migration into homes are being received. HACKBERRY NIPPLE GALL (*Pachypsylla celtidis-mamma*) has become an exceedingly annoying pest, getting through screens and into homes in the fall of the year. It first appeared as an invading pest just a few years ago, and this fall (1953) it has been more abundant and troublesome than at any time in the past.